Contents of Volume 52

No. 1

G.M. Klump and K. Okanoya *(F.R.G.)*
Temporal modulation transfer functions in the European Starling (*Sturnus vulgaris*): I. Psychophysical modulation detection thresholds 1

R.S. Heffner and H.E. Heffner *(U.S.A.)*
Behavioral hearing range of the chinchilla 13

T.H. González-Hernández, D. Galindo-Mireles, A. Castañeyra-Perdomo and R. Ferres-Torres *(Spain)*
Divergent projections of projecting neurons of the inferior colliculus to the medial geniculate body and the contralateral inferior colliculus in the rat 17

P.A. Starr and W.F. Sewell *(U.S.A.)*
Neurotransmitter release from hair cells and its blockade by glutamate-receptor antagonists 23

A. Czibulka and I.R. Schwartz *(U.S.A.)*
Neuronal populations in the gerbil PVCN: Effects of age, hearing status and microcysts 43

G. Zajic, T.S. Nair, M. Ptok, C. Van Waes, R.A. Altschuler, J. Schacht and T.E. Carey *(U.S.A.)*
Monoclonal antibodies to inner ear antigens: I. Antigens expressed by supporting cells of the guinea pig cochlea 59

K. Ehrenberger and D. Felix *(Austria, Switzerland)*
Glutamate receptors in afferent cochlear neurotransmission in guinea pigs 73

L. Décory, H. Hiel and J.-M. Aran *(France)*
In vivo noise exposure alters the in vitro motility and viability of outer hair cells 81

J. Santos-Sacchi *(U.S.A.)*
Isolated supporting cells from the organ of Corti: Some whole cell electrical characteristics and estimates of gap junctional conductance 89

P. Avan, P. Bonfils, D. Loth, P. Narcy and J. Trotoux *(France)*
Quantitative assessment of human cochlear function by evoked otoacoustic emissions 99

I.H.M. Van Stokkum and W.J. Melssen *(The Netherlands)*
Measuring and modelling the response of auditory midbrain neurons in the grassfrog to temporally structured binaural stimuli 113

W. Kuijpers, E.L.G.M. Tonnaer, T.A. Peters and F.C.S. Ramaekers *(The Netherlands)*
Expression of intermediate filament proteins in the mature inner ear of the rat and guinea pig 133

K.C. Horner *(France)*
Old theme and new reflections: Hearing impairment associated with endolymphatic hydrops 147

G. Després, A. Hafidi and R. Romand *(France)*
Immunohistochemical localization of nerve growth factor receptor in the cochlea and in the brainstem of the perinatal rat 157

D.O. Kim and K. Parham *(U.S.A.)*
Auditory nerve spatial encoding of high-frequency pure tones: Population response profiles derived from d′ measure associated with nearby places along the cochlea 167

M. Subramaniam, P. Campo and D. Henderson *(U.S.A., France)*
The effect of exposure level on the development of progressive resistance to noise 181

L.R. Bernstein *(U.S.A.)*
Measurement and specification of the envelope correlation between two narrow bands of noise 189

N. Zhou and T.N. Parks *(U.S.A.)*
Pharmacology of excitatory amino acid neurotransmission in nucleus laminaris of the chick 195

C.L. Faingold, C.A. Boersma Anderson and D.M. Caspary *(U.S.A.)*
Involvement of GABA in acoustically-evoked inhibition in inferior colliculus neurons 201

W.S. Quirk, B.D. Shapiro, J.M. Miller and A.L. Nuttall *(U.S.A.)*
Noise-induced changes in red blood cell velocity in lateral wall vessels of the rat cochlea 217

D. Dulon, G. Zajic and J. Schacht *(U.S.A.)*
Differential motile response of isolated inner and outer hair cells to stimulation by potassium and calcium ions 225

P. Zakarauskas and M.S. Cynader *(Canada)*
Aural intensity for a moving source 233

A. Schrott, J.-L. Puel and G. Rebillard *(Austria, France)*
Cochlear origin of $2f_1-f_2$ distortion products assessed by using 2 types of mutant mice 245

S.E. Shore, R.H. Helfert, S.C. Bledsoe, Jr., R.A. Altschuler and D.A. Godfrey *(U.S.A.)*
Descending projections to the dorsal and ventral divisions of the cochlear nucleus in guinea pig 255

Announcements 269

No. 2

C.I. Berlin, L.J. Hood, E.K. Barlow, C.R. Morehouse and E.G. Smith *(U.S.A.)*
Derived guinea pig compound VIIIth nerve action potentials to continuous pure tones 271

I. Schneider and L. Gray *(U.S.A.)*
Rapid development of a sensory attribute in young chickens 281

B.N. Evans, R. Hallworth and P. Dallos *(U.S.A.)*
Outer hair cell electromotility: The sensitivity and vulnerability of the DC component 288

A.M. Pou, M. Fallon, S. Winbery and R.P. Bobbin *(U.S.A.)*
Lowering extracellular calcium decreases the length of isolated outer hair cells 305

J.C. Booth and D.A. Cramb *(Canada)*
Threshold integration of bi-amplitude signals 312

M. Hillerdal and S.E. Andersson *(Sweden)*
The effects of calcitonin gene-related peptide (CGRP) on cochlear and mucosal blood flow in the albino rabbit 321

B.M. Clopton and P.M. Backoff *(U.S.A.)*
Spectrotemporal receptive fields of neurons in cochlear nucleus of guinea pig 329

U. Pirvola, E. Lehtonen and J. Ylikoski *(Finland)*
Spatiotemporal development of cochlear innervation and hair cell differentiation in the rat 345

413

E. Hashino, Y. Tanaka and M. Sokabe *(Japan)*
Hair cell damage and recovery following chronic application of kanamycin in the chick cochlea 356

P.D. Munyer and B.A. Schulte *(U.S.A.)*
Immunohistochemical identification of proteoglycans in gelatinous membranes of cat and gerbil inner ear 369

D.A. Cotanche and J.T. Corwin *(U.S.A.)*
Stereociliary bundles reorient during hair cell development and regeneration in the chick cochlea 379

Short Communications

J.G. Neely, A.M. Thompson and D.J. Gower *(U.S.A.)*
Detection and localization of heat shock protein 70 in the normal guinea pig cochlea 403

G. Zajic and J. Schacht *(U.S.A.)*
Shape changes in isolated outer hair cells: measurements with attached microspheres 407

Contents of Volume 52 411

Author Index 415

Subject Index 417

Announcements 424